

WHAT IS CLAIMED IS:

1. A method for collaborating access to a drawing document on a network,
comprising:

storing a drawing document on a server;

5 receiving, in the server, a request to open the drawing document;

in response to the request, the server establishing a collaboration session,

wherein during the collaboration session, the server permits two or more collaborators
to work simultaneously across the network on the drawing document stored on the
server;

10 receiving, in the server, a command to modify the drawing document from a first
one of the collaborators in the collaboration session; and

the server distributing the command to modify the drawing document to other
ones of the collaborators in the collaboration session.

15 2. The method of claim 1, further comprising the server maintaining a
history of modifications to the drawing document.

3. The method of claim 2, wherein the history is used to support an undo
command.

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4. The method of claim 2, wherein the history is used to recommunicate
modifications to the two or more collaborators.

5. The method of claim 1, further comprising the server maintaining a record of the collaboration session including name, numbers, and statuses of the two or more collaborators.

5 6. The method of claim 1, wherein the command comprises an extensible markup language (XML) command.

7. The method of claim 1, wherein the two or more collaborators all have write-access for the drawing document during the collaboration session.

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8. The method of claim 1, wherein the command is received in the server from a first collaborator pursuant to a regularly transmitted command.

9. The method of claim 1, further comprising:
15 generating an identifier for the command;
distributing the identifier with the command to the other collaborators in the collaboration session.

10. The method of claim 1, wherein the command specifies an object
20 identifier for an object in the drawing document that is modified.

11. The method of claim 1, wherein an extensible set of three dimensional modeling tools for modifying the drawing document is supported.

12. A method for accessing a drawing document on a network, comprising:
joining an existing collaboration session comprised of a collaborator on a
network, wherein during the collaboration session, collaborators in the collaboration
5 session can work simultaneously across the network on a drawing document stored on a
server; and

transmitting, to the server, a first command to modify the drawing document.

13. The method of claim 12, further comprising receiving a second
10 command to modify the document from the server wherein the command was originally
transmitted from another collaborator.

14. The method of claim 12, wherein the command comprises an undo
command.

15. The method of claim 12, wherein the command comprises an extensible
markup language (XML) command.

16. The method of claim 12, further comprising displaying a collaboration
20 palette that provides information relating to the collaborators in the collaboration
session.

17. The method of claim 12, wherein the command is transmitted pursuant

to a regularly transmitted command.

18. The method of claim 12, wherein the command specifies an object identifier for an object in the drawing document that is modified.

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19. The method of claim 12, wherein an extensible set of three dimensional modeling tools for modifying the drawing document is supported.

20. An system for collaborating access to a drawing document on a network comprising:

(a) a server connected to a network and having a memory and a data storage device coupled thereto;

(b) a drawing document stored on the server; and

(c) a computer program, performed by the server, the computer program configured to:

(i) receive a request to open the drawing document;

(ii) in response to the request, establishing a collaboration session, wherein during the collaboration session, the computer program permits two or more collaborators to work simultaneously across the network on the drawing document;

(iii) receive a command to modify the drawing document from a first one of the collaborators in the collaboration session; and

(iv) distribute the command to modify the drawing document to

other ones of the collaborators in the collaboration session.

21. The system of claim 20, wherein the computer program is further configured to maintain a history of modifications to the drawing document.

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22. The system of claim 21, wherein the history is used to support an undo command.

23. The system of claim 21, wherein the history is used to recommunicate
10 modifications to the two or more collaborators.

24. The system of claim 20, wherein the computer program is further configured to maintain a record of the collaboration session including name, numbers, and statuses of the two or more collaborators.

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25. The system of claim 20, wherein the command comprises an extensible markup language (XML) command.

26. The system of claim 20, wherein the two or more collaborators all have
20 write-access for the drawing document during the collaboration session.

27. The system of claim 20, wherein the command is received in the server from a first collaborator pursuant to a regularly transmitted command.

28. The system of claim 20, wherein the computer program is further configured to:

generate an identifier for the command;

5 distribute the identifier with the command to the other collaborators in the collaboration session.

29. The system of claim 20, wherein the command specifies an object identifier for an object in the drawing document that is modified.

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30. The system of claim 20, wherein the computer program supports an extensible set of three dimensional modeling tools for modifying the drawing document.

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31. A system for accessing a drawing document on a network, comprising:
(a) a collaborator connected to a network and having a memory and a data storage device coupled thereto; and

(b) a computer program, performed by the collaborator, the computer
5 program configured to:

(i) join an existing collaboration session comprised of a collaborator on a network, wherein during the collaboration session, collaborators in the collaboration session work simultaneously across the network on a drawing document stored on a server; and
10 (ii) transmit, to the server, a first command to modify the drawing document.

32. The system of claim 31, the computer program further configured to receive a second command to modify the document from the server wherein the
15 command was originally transmitted from another collaborator.

33. The system of claim 31, wherein the command comprises an undo command.

20 34. The system of claim 31, wherein the command comprises an extensible markup language (XML) command.

35. The system of claim 31, further, wherein the computer program is

further configured to display a collaboration palette that provides information relating to the collaborators in the collaboration session.

36. The system of claim 31, wherein the command is transmitted pursuant to
5 a regularly transmitted command.

37. The system of claim 31, wherein the command specifies an object
identifier for an object in the drawing document that is modified.

10 38. The system of claim 31, wherein the computer program supports an
extensible set of three dimensional modeling tools for modifying the drawing document..

39. An article of manufacture comprising a program storage medium
readable by a computer and embodying one or more instructions executable by the
15 computer to perform a method for collaborating access to a drawing document on a
network, the method comprising:

storing a drawing document on a server;

receiving, in the server, a request to open the drawing document;

in response to the request, the server establishing a collaboration session,

20 wherein during the collaboration session, the server permits two or more collaborators
to work simultaneously across the network on the drawing document stored on the
server;

receiving, in the server, a command to modify the drawing document from a first

one of the collaborators in the collaboration session; and

the server distributing the command to modify the drawing document to other ones of the collaborators in the collaboration session.

5 40. The article of manufacture of claim 39, wherein the method further comprises the server maintaining a history of modifications to the drawing document.

10 41. The article of manufacture of claim 40, wherein the history is used to support an undo command.

 42. The article of manufacture of claim 40, wherein the history is used to recommunicate modifications to the two or more collaborators.

15 43. The article of manufacture of claim 39, wherein the method further comprises the server maintaining a record of the collaboration session including name, numbers, and statuses of the two or more collaborators.

 44. The article of manufacture of claim 39, wherein the command comprises an extensible markup language (XML) command.

20 45. The article of manufacture of claim 39, wherein the two or more collaborators all have write-access for the drawing document during the collaboration session.

46. The article of manufacture of claim 39, wherein the command is received in the server from a first collaborator pursuant to a regularly transmitted command.

5 47. The article of manufacture of claim 39, wherein the method further comprises:

generating an identifier for the command;

distributing the identifier with the command to the other collaborators in the collaboration session.

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48. The article of manufacture of claim 39, wherein the command specifies an object identifier for an object in the drawing document that is modified.

49. The article of manufacture of claim 39, wherein the method further
15 comprises providing an extensible set of three dimensional modeling tools for modifying the drawing document.

50. An article of manufacture comprising a program storage medium readable by a computer and embodying one or more instructions executable by the
20 computer to perform a method for accessing a drawing document on a network, the method comprising:

joining an existing collaboration session comprised of a collaborator on a network, wherein during the collaboration session, collaborators in the collaboration

session work simultaneously across the network on a drawing document stored on a server; and

transmitting, to the server, a first command to modify the drawing document.

5 51. The article of manufacture of claim 50, wherein the method further comprises receiving a second command to modify the document from the server wherein the command was originally transmitted from another collaborator.

10 52. The article of manufacture of claim 50, wherein the command comprises an undo command.

 53. The article of manufacture of claim 50, wherein the command comprises an extensible markup language (XML) command.

15 54. The article of manufacture of claim 50, wherein the method further comprises displaying a collaboration palette that provides information relating to the collaborators in the collaboration session.

20 55. The article of manufacture of claim 50, wherein the command is transmitted pursuant to a regularly transmitted command.

 56. The article of manufacture of claim 50, wherein the command specifies an object identifier for an object in the drawing document that is modified.

57. The article of manufacture of claim 50, wherein the method further comprises providing an extensible set of three dimensional modeling tools for modifying the drawing document.

FOOTNOTES